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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,750	03/05/2002	Louis B. Rosenberg	IMMR-014/02US	8227

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EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,750

Applicant(s)

ROSENBERG, LOUIS B.

Examiner

Kevin M. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>06/14/2004</u> . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>08/03/2004</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. This office action is made in response to interview summary filed on 06/14/2004. Claims 1-37 are cancelled, claims 38-57 are amended, and claims 38-57 are currently pending in the application. An action follows below:
2. Applicant's arguments, see pages 1 and 2, filed 06/17/2004, with respect to the rejections of claims 38-57 under the statutory basis the previous rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of newly found prior art references.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 38, 39, 42, 43, 47-49 and 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki (JP 08-324194).
4. As to claim 38, Sasaki teaches a vibrating pen comprising:
 - a. A pen (a stylus, see drawing 1), a work piece 9 (a surface, see drawing 1), a hand of a user (inherent);
 - b. A position sensor 11 (a sensor, see drawing 1), a control section 27 (a host computer), the work piece 9 (the surface, see drawing 1). The operation of this for more detail see paragraph [0037];

- c. A magnetic substances (17, 20) and a coil 21 define an actuator (see drawing 1, page 1). The drawing 1 shows the magnetic substances (17, 20) and the coil 21 is provided on the inner peripheral (see constitution, lines 7-10). The position sensor 11 and the feedback signal Sf (see page 4, paragraphs [0028] and [0029]) define a haptic feedback as claimed.
5. As to claim 40, Sasaki teaches the magnetic substances (17, 20) and the coil 21 define an actuator (see drawing 1, page 1). Thus, when the vibrating pen is active, there will be the length of the vibrating pen which is changed.
6. As to claim 42, Sasaki teaches the adjustable of impulse force F_s (a plurality of force sensation) is performed when current I_+ and current I_- in a coil 21 by turns, a shaft 18 repeats vibration with the fixed amplitude and oscillation frequency, this is followed, and a stylus 24 vibrates (see page 5, last paragraph [0034]).
7. As to claim 43, Sasaki teaches the coil 21, the magnetic substances 20 and 17 which define a voice coil.
8. As to claim 47, Sasaki teaches adjustable of the weight of a dead weight 19, the rate v , and the amplitude of the current I shown in (1) formula. When current I_+ and current I_- in a coil 21 by turns, a shaft 18 repeats vibration with the fixed amplitude and oscillation frequency, this is followed, and a stylus 24 vibrates (see page 5, last paragraph [0034]). Thus, if the shaft 18 is at high height and high rate v , then the actuator configured to vibrate at a high frequency.

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9. As to claim 48, Sasaki teaches a stylus 24 moves forward and the point 24a collides with the front face of a work piece 9 (see page 5, last paragraph [0034], lines 6-7). Thus, it is provided the sensor is disposed within a surface.

10. As to claims 49 and 55, Sasaki teaches a vibrating pen associated with a method, the vibrating pen comprising:

d. A pen (a stylus, see drawing 1);

e. While the shaft 18 is vibrating, a position sensor 11 detects the distance d of self and the end of a shaft 18, and outputs the location detecting signal Sp to CPU 28 through position-sensor interface 32 and bus B. Thereby, CPU 28 controls the oscillation frequency and the amplitude of a shaft 18 (see paragraph [0037]).

f. Adjustable of the weight of a dead weight 19, the rate V, and the amplitude of the current I shown in (1) formula. When current I+ and current I- in a coil 21 by turns, a shaft 18 repeats vibration with the fixed amplitude and oscillation frequency, this is followed, and a stylus 24 vibrates (see page 5, last paragraph [0034]). Thus, if the shaft 18 is at high height and high rate v, then the actuator configured to vibrate at a high frequency.

11. As to claim 50, Sasaki teaches the adjustable of impulse force Fs (the modulated force) is performed when current I+ and current I- in a coil 21 by turns, a shaft 18 repeats vibration with the fixed amplitude and oscillation frequency, this is followed, and a stylus 24 vibrates (see page 5, last paragraph [0034]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 40, 41, 44-46, 50-54, 56, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki in view of Berkson et al (US 5,627,348).

13. As to claims 40, 41, Sasaki teaches all of the claimed limitation of claim 28, except for a power source disposed within the stylus.

However, Berkson et al teaches a related electronic stylus which includes a battery 72 to drive electronic circuitry 74 (see figs. 12 and 13, col. 13, lines 39-43). Thus, the battery 72 disposed within the stylus.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the Sasaki's pen including the battery disposed within the stylus, in view of the teaching in the Berkson's reference, because this would provide power supply for the electronic stylus, a different embodiment might place part of the compliance in the stylus and part in the writing surface or an combination may be used as taught by Berkson et al (col. 11, lines 40-42).

14. As to claim 44, Berkson et al teaches a rolling friction of ball 14 (see fig. 2, col. 4, line 58).

15. As to claim 45, Berkson et al teaches writing resistance, hand friction and surface warmth (see col. 5, lines 40-43).

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16. As to claim 46, Sasaki teaches the output current I_+ and current I_- flow in the coil 21 which defined a solenoid (see paragraph [0034], line 2).

17. As to claim 50, Berkson et al teaches the use of a spring or biasing means for pressing against the non-marking ball 28 (col. 5, lines 18-19).

18. As to claim 51, Berkson et al teaches the force (N) versus the displacement (nm) of the pen (see fig. 11, col. 6, lines 53-56).

19. As to claims 52 and 56, Berkson et al teaches pen-like structure is held in the hand like a conventional physical writing instrument, and moved over a surface in a physical writing operation (col. 4, lines 15-17).

20. As to claim 53, Berkson et al teaches a ball 14 (a tip) projects for allowing contact with a writing surface (fig. 1, col. 4, lines 47-48).

21. As to claim 54, Sasaki teaches the output current I_+ and current I_- flow in the coil 21 which defined a solenoid (see paragraph [0034], line 2).

22. As to claim 57, Berkson et al teaches the use of a spring or biasing means for pressing against the non-marking ball 28 (col. 5, lines 18-19). Berkson et al further teaches the force (N) versus the displacement (nm) of the pen (see fig. 11, col. 6, lines 53-56).

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
Art Unit 2674

KN
January 19, 2005


XIAO WU
PRIMARY EXAMINER